Title: TECHNIQUE FOR OPTIMIZING THE DELIVERYOF ADVERTISEMENTS AND OTHER PROGRAMMING SEGMENTS BY MAKING BANDWIDTH TRADEOFFS

REMARKS

This responds to the Office Action dated May 29, 2008.

Claims 5 and 9 are amended and claims 2, 4, 6-8, 12, 21, 23,25, 27-28, 30-31, 40-41, 44-45, 67-68, 71, 75-76 are canceled; as a result, claims 1, 3, 5, 9-11, 13-20, 22, 24, 26, 29, 32-39, 42, 43, 46-66, 69, 70, 72-74, and 77-80 are now pending in this application.

§103 Rejection of the Claims

Claims 1-5, 9-11, 13-39, 42-43, 46-74 and 77-80 were rejected under 35 U.S.C. § 103(a) as being unpatentable over <u>Bouchet et al.</u> (WO 00/51310) in view of <u>Ficco</u> (U.S. Patent Application Publication No. 2005/0166224) and further in view of <u>Hensgen et al.</u> (U.S. Patent Application Publication No. 2003/0208771) and further in view of <u>Wasilewski</u> (U.S. Patent No. 5,600,378).

Before directly addressing the Examiner's rejection, a brief review of the disclosure is advisable. The present patent application discloses a system for increasing a quantity of differentiable programming content available in a digital programming transmission stream. The system operates by selecting a plurality of individual digital programming components wherein more than one of the plurality of digital programming components are capable of being presented to a user concurrently. For example, the plurality of digital programming components may comprise a first video track, a second video track, a graphic overlay, a first audio track, and a second audio track. Several of these digital programming components can be presented to a user simultaneously such as the first video track and the first audio track or the second video track and a graphic overlay.

To increase the quantity of differentiable programming content available, the system of the present invention allows many different programming content segments to be created by defining many different combinations of the digital programming components that the receiver system may select from. Thus, the re-use of multiple different digital programming components within different programming content segments that each consist of different permutations of the digital programming components allows for a very large number of differentiable programming content segments to be created. Referring to the example set forth in the preceding paragraph, at

least eight ("8") different permutations of different programming content segments can be created even if the two different audio tracks and the two different video tracks are not allowed to be within the same programming content segment. Specifically, the following table lists eight different possible combinations of digital programming components:

Possible combination	Combined digital programming components
1	First audio track, first video track
2	First audio track, first video track with graphic overlay
3	First audio track, second video track
4	First audio track, second video track with graphic overlay
5	Second audio track, first video track
6	Second audio track, first video track with graphic overlay
7	Second audio track, second video track
8	Second audio track, second video track with graphic overlay

Depending on the number of different digital programming components provided and the particular restrictions placed on combining those digital programming components (which components may or may not be presented simultaneously), a very large number of differentiable programming content segments may be created.

In the most recent office action, the Examiner rejected claims 1-5, 9-11, 13-39, 42-43, 46-74 and 77-80 under 35 U.S.C. § 103(a) as being unpatentable over <u>Boucher et al.</u> (WO 00/51310) in view of <u>Ficco</u> (U.S. Patent Application Publication No. 2003/0208771) and further in view of <u>Hensgen et al.</u> (U.S. Patent Application Publication No. 2003/0208771) and further in view of Wasilewski (U.S. Patent No. 5.600.378).

Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness for at least the following reasons. Even if combined, these cited references fail to teach or suggest all of the claimed elements of Applicant's invention. Furthermore, the cited references teach away from the currently claimed invention.

The most recent Office Action argues that the limitation of "creating a data table, said data table identifying said plurality of subsets of digital programming components" as claimed in claim 1 and cites <u>Wasilewski</u> col. 1, lines 46-58 to support its assertion, specifically the Program Association Table (PAT). (Office Action p. 5, lines 8-10) Applicant respectfully disagrees.

<u>Wasilewski</u> discloses additional structures for use in MPEG-2 systems to allow a service provider the flexibility of moving programs around to different transport streams and different frequencies without having to update the EPG service provider of each and every change. (Wasilewski col. 3, lines 8-15) The MPEG-2 system (ISO/IEC 13818-1) discussed in Wasilewski uses Program Specific Information (PSI) tables which includes a Program Association Table (PAT).

"The PAT specifies the packet identifiers (PIDs) for the packets which carry Program Map Tables (PMTs) for the components of one or more programs on a transport stream. In other words, the PAT associates a program number with the transport packets that carry the PMT for that program. The PAT is always sent in packets with PID=0." (Wasilewski column 1, line 63 – column 2, line 1) This is clearly not "creating a data table, said data table identifying said plurality of subsets of digital programming components" because "said plurality of subsets of digital programming components "comprises a unique combination of digital programming components ... wherein each subset of digital programming components is also a unit of differentiable programming content." (Applicant's claim 1) In summary, the PAT in Wasilewski identifies a program number to be associated with the transport packets that carry PMT; it does not identify subsets of digital programming components that are units of differentiable programming content.

The present invention thus presents a novel feature that is not disclosed nor taught toward in the <u>Wasilewski</u> reference. Furthermore, <u>Boucher</u>, <u>Ficco</u>, and <u>Hensgen</u> also do not disclose nor teach toward the novel feature.

The most recent Office Action also argues that the limitation of "defining a plurality of subsets of the plurality of digital programming components to comprise a plurality of component programming segments wherein each component programming segment is also a unit of differentiable programming content" is disclosed in <u>Boucher</u> page 29, lines 26-page 30, lines 15; page 36, lines 30-page 37, lines 7; page 38, lines 2-3; page 43, lines 1-page 44, lines 15; page 53, lines 30-page 54, lines 20; page 59, lines 10-page 60, lines 32; and page 68, lines 17-32. (Office Action p. 3, lines 9-16). Applicant disagrees that the <u>Boucher</u> discloses that limitation as claimed in the original application or the limitation of "defining a plurality of subsets of the plurality of programming components ... wherein each subset of digital programming

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components is also a unit of differentiable programming content" as previously amended and presented in claim 1.

Independent claim 1 recites:

A method of increasing a quantity of differentiable programming content available in a digital programming transmission stream, said method comprising:

- creating a plurality of digital programming components, more than one of the plurality of digital programming components capable of being presented to a user concurrently, the plurality of digital programming components utilizing a bandwidth of the digital programming transmission stream less than or equal to a bandwidth normally allocated for a standard digital programming segment, wherein the standard digital programming segment is a unit of differentiable programming content;
- defining a plurality of subsets of the plurality of digital programming components wherein each subset comprises a unique combination of digital programming components from multiple different possible combinations of said digital programming components, wherein each subset of digital programming components is also a unit of differentiable programming content;
- creating a data table, said data table identifying said plurality of subsets of digital programming components; and
- inserting the plurality of component programming segments and said data table into the digital programming transmission stream the quantity of differentiable programming content available in the digital programming transmission stream is increased.

(Emphasis added)

The <u>Boucher</u> reference discloses a system and method for interactive distribution of selectable presentations. The cited portions of the <u>Boucher</u> reference describe a distribution hierarchy wherein all presentation data is stored at a national operations center (NOC). Presentation data can also be stored at different local operating centers (LOCs) and different operating centers (ROCs). Presentation data and updates to presentation data can be stored in the NOC and distributed to LOCs and ROCs and eventually to users. (<u>Boucher</u> p. 29, line 20 – p. 31, line 10; p. 36, lines 30-p. 37, lines 7)_Another cited portion of Boucher describes video and audio data conversion and storage in which the conversion and storage of the audio and video files is independent of the storage of the image elements. (<u>Boucher</u> p. 43, lines 1-p. 44, lines 15)

Boucher does not disclose or tend to teach "defining a <u>plurality of subsets...wherein each</u> subset of digital programming components is also a unit of differentiable programming content" as arranged in claim 1 because in <u>Boucher</u>, no plurality of subsets are defined. Instead, Boucher only discusses the "storage of video files independent of the storage of audio files; and both video files and audio files are independent of the storage of the image element files." (Boucher p. 43, lines 8-13) Furthermore the <u>Boucher</u> reference does not teach the transmission of multiple different multi-media presentations (units of programming content) wherein the various different multi-media presentations are constructed from different combinations (subsets) of the same set of multi-media elements (digital programming components). In Boucher, each multi-media presentation is a single self-contained presentation ("The invention processes video, audio, and graphics/command data in a digital format designed to provide the highest quality pictures and sound within the least transmission bandwidth." <u>Boucher</u> p. 5, lines 22-24).

The rest of the Boucher reference and the additional references of <u>Ficco</u>, <u>Hensgen</u>, or <u>Wasilewski</u> also do not disclose this limitation as arranged in claim 1.

For the above reasons, the Office Action fails to show that Boucher in view of Ficco in further in view of Hensgen and Wasilewski teaches or suggests every element of claim 1.

Applicant respectfully submits that there are substantial differences between what is claimed and what the Office Action contends to be shown in Boucher in view of Ficco, Hensgen, and Wasilewski. These differences are significant and non-obvious to a person of ordinary skill in the art at the time the application was filed. Thus, claim 1 is not rendered obvious by Boucher in view of Ficco, Hensgen, and Wasilewski.

Independent claims 3, 36-39, and 77 recite similar limitations as claim 1 and therefore should be allowable for at least the reasons presented above and Applicant respectfully requests notification of the same.

Claims 5, 9-20, 22, 24, 29, 32-35, 42, 43, 45-66, 69, 70, 72-74, and 78-80 all depend from independent claims 3, 36-39, and 77 and incorporate all elements therein. Accordingly, claims 5, 9-20, 22, 24, 29, 32-35, 42, 43, 45-66, 69, 70, 72-74, and 78-80 allowable for at least the reasons presented above and Applicant respectfully requests notification of the same.

Further, Applicant asserts that the additional elements of claims 5, 9-20, 22, 24, 29, 32-35, 42, 43, 45-66, 69, 70, 72-74, and 78-80 further distinguish <u>Boucher</u> in view of <u>Ficco</u>,

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<u>Hensgen</u>, and <u>Wasilewski.</u>, and Applicant reserves the right to present arguments to this effect at a later date.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (408) 278-4058 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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